

× 380. 8. Posterior foot-jaw, × 380. 9. Foot of first pair, × 190. 10. Foot of fourth pair, × 127. 11. Foot of fifth pair, female, × 190. 12. Anterior antenna, male, × 253. 13. Foot of third pair, inner branch only, male, × 190. 14. Foot of fifth pair, male, × 190.

*Pseudanthessius gracilis*, Claus.

*Fig. 15.* Female, seen from above, × 40. 16. Posterior antenna, × 127. 17. Mandible and (a) maxilla, × 190. 18. Anterior foot-jaw, × 190. 19. Posterior foot-jaw, × 190. 20. Foot of fourth pair, × 127.

PLATE XIII.

? *Cyproidia brevirostris*, sp. n.

*Fig. 1.* Female (?), seen from the side, × 48. 2. Superior antenna, × 127. 3. Inferior antenna, × 127. 4. Mandible and palp, × 285. 5. First gnathopod, × 127. 6. Second gnathopod, × 127. 7. Third pereiopod, × 95. 8. Fifth pereiopod, × 95. 9. First uropod, × 127. 10. Third uropod, × 127. 11. Telson, × 190.

XLI.—*A few Synonymical Notes upon African Lepidoptera.*  
By W. J. HOLLAND, Ph.D., F.E.S.

THE seventeenth livraison of Mons. Charles Oberthür's splendid 'Études d'Entomologie' is before me. I am glad to see the discussion on p. 28 in regard to Drury's *Acræa cynthius*. The identification of this species and the species which have borne the names *serena*, Fabr., *bonasia*, Fabr., and *eponina*, Cram., has led to much difficulty in the minds of the students of African Lepidoptera. Having recently had occasion to work out the subject with all the literature pertaining to it before me, and at the same time with long series of the species in question at hand for study and reference, it is a pleasure to me to see that so eminent an authority as Mons. Oberthür has practically attained the same results in his investigations as those at which I have myself arrived. Mons. Oberthür expresses some doubt as to the correctness of his decision; but that it is absolutely correct seems to me to be beyond question.

It is worthy of note that the species which he figures with some hesitation as *Acræa cynthius*, Drury, has for some years past been sold as *Acræa bonasia*, Fabr., by Dr. Staudinger, and thus stands labelled in many collections. Dr. Staudinger was undoubtedly led to this determination by the identification of *A. bonasia*, Fabr., with *A. cynthius*, Drury, by Kirby

(see Kirby, Syn. Cat. Diurn. Lep. p. 132. no. 19). Mr. Butler, in his 'Catalogue of the Fabrician Diurnal Lepidoptera,' p. 131, states emphatically that the *Papilio bonasia* of Fabricius is identical with Cramer's *P. eponina*, as evidenced by the type in the Banksian Collection. This view is confirmed by Mr. Trimen in his 'South-African Butterflies,' vol. i. p. 174, footnote.

Mons. Oberthür quotes Trimen, 'Rhopalocera Africæ Australis,' as favouring the view that *A. eponina*, Cram., is a synonym of *A. cynthius*, Drury. Had Mons. Oberthür consulted Mr. Trimen's recent work 'South-African Butterflies,' vol. i. pp. 174 and 175, he would have seen that the recent studies of the learned Curator of the South-African Museum have led him to greatly modify the views expressed in his work published in 1862. The synonymy of the various species of the group which have been confused with one another in this genus may be worked out as follows, and will, I think, be found correct:—

### 1. *Acræa (Papilio) cynthius*, Drury.

- Acræa (P.) cynthius*, Drury, Ill. Exot. Ent. iii. pl. xxxvii. figs. 5, 6 (1782).  
*Acræa (P.) cynthia*, Herbst, Naturs. Schmett. iv. pl. lxxx. figs. 1, 2 (1790).  
*Acræa cynthia*, Godt. Enc. Méth. ix. p. 234. no. 13 (1819).  
*Acræa cynthius*, Trimen, South-African Butt. vol. i. p. 175 (1887).  
*Acræa cynthius*?, Oberthür, Etudes d'Entom. xvii. p. 28, pl. i. fig. 5 (1893).  
*Telchinia serena* (Fabr.), Butl. (pars), Cat. Fabr. Diurn. Lep. p. 130 (1869).  
*Acræa bonasia* (Fabr.), Kirby, Syn. Cat. Diurn. Lep. p. 132 (1871).

### 2. *Acræa (P.) serena*, Fabr.

- Acræa (P.) serena*, Fabr. Syst. Ent. p. 461. no. 76 (1775).  
*Acræa (P.) eponina*, Cram., ♀, Pap. Exot. iii. pl. cclxviii. figs. C, D (1782).  
*Acræa serena*, Herbst, Naturs. Schmett. iv. pl. lxxxii. figs. 8, 9 (1790).  
*Telchinia serena*, Butl. Cat. Fabr. Diurn. Lep. p. 130 (1869) (pars).

### 3. *Acræa (P.) bonasia*, Fabr.

- Acræa (P.) bonasia*, Fabr. Syst. Ent. p. 464. no. 96 (1775).  
*Acræa (P.) eponina*, Cram. Pap. Exot. iii. pl. cclxviii. figs. A, B (1782).  
*Acræa (P.) serena*, Fabr. Mant. Ins. pp. 14, 16. nos. 133, 164 (1787).  
*Acræa (P.) serena*, Herbst, Naturs. Schmett. iv. pl. lxxxii. figs. 6, 7 (1790).

### 4. *Acræa Buxtoni*, Butl.

- Acræa Buxtoni*, Butl. Ann. & Mag. Nat. Hist. (4) xvi. p. 395 (1875).  
*Acræa serena* (Fabr.), Boisd. App. Voy. de Deleg. p. 590 (1847).

*Acræa manjaca* (Boisd.), Wallgrn. Lep. Rhop. Caffr. p. 22 (1857).

*Acræa serena* (Fabr.), pars, Trimen, Rhop. Afr. Aust. i. p. 107 (1862).

*Acræa serena* (Fabr.), Stdgr. Exot. Schmett. pl. xxxiii. (1888).

### 5. *Acræa manjaca*, Boisd.

*Acræa manjaca*, Boisd. Faune Ent. Madag. p. 33, pl. iv. fig. 6, pl. v. figs. 6 & 7.

*Acræa serena*, var. *a*, Kirby, Syn. Cat. Diurn. Lep. p. 132 (1871).

### 6. *Acræa cabira*, Hopff.

*Acræa cabira*, Hopff. Monatsber. d. k. Preuss. Akad. d. Wissench. 1855, p. 640. no. 7, and Peters's Reise nach Mossamb., Ins. p. 378, pl. xxiii. figs. 14, 15 (1862).

*Acræa cynthia*, Trimen (pars), Rhop. Afr. Austr. i. p. 108. no. 68 (1862).

*Acræa cynthia*, Boisd. App. Voy. de Deleg. p. 590 (1847).

It appears from the foregoing that the name *eponina*, Cram., falls entirely, being a synonym both of *A. bonasia*, Fabr., and of *A. serena*, Fabr., in the cases where it is employed by Cramer. *A. cynthius*, Drury, was confounded by later writers with a very different insect, which was named *Acræa cabira* by Hopffer. *Acræa Buxtoni*, Butl., is a good species, which was mistaken for a long while, and is still mistaken by careless authors, for *A. serena*, Fabr. *A. manjaca*, Boisd., is a good species, representing *A. Buxtoni*, Butl., in Madagascar. I have large series of all these species in my collection, representing both sexes, and am able to positively affirm from what I know of them that they are valid.

On p. 25 of livraison xvii. 'Études d'Entomologie' Mons. Oberthür describes several forms of an *Acræa* to which he gives the name *proteina*; of which on pl. i. fig. 4 he depicts what he avers is the male, and on pl. ii. figs. 19 and 21 what he claims are varietal forms, presumably of the male, though he does not designate the sex, and on the same plate, fig. 14, what he considers the typical form of the species. On pl. iii. fig. 29 he depicts another varietal form, and on pl. ii. fig. 17 a form which he describes under the name *A. kilimanjara*. I am quite familiar with this insect, a considerable number having passed through my hands which were taken by Dr. Abbott in the region about Kilimanjaro in 1888. It is the insect which was described by Godman, in the 'Proceedings of the Zoological Society of London,' 1885, p. 537, as *A. Johnstoni*, and the female of which was described by Butler in the same journal for 1888, p. 91. From material before me I am able to confidently assert

that the black form with well-defined white spots is, as Mr. Butler has determined, the female of the male with the prevalently fulvous wings. *A. kilimanjara*, Oberth., is, as I am forced to believe, a variant female of the species. The synonymy is as follows:—

*Acræa Johnstoni*, Gdm.

*Acræa Johnstoni*, Gdm. P. Z. S. Lond. 1885, p. 537 (♂); Butler, P. Z. S. 1888, p. 91 (♀).

*Acræa proteina*, Oberth. Etud. d'Entom. livr. xvii. pp. 25, 26, pl. ii. fig. 19 (typical *Johnstoni*, Gdm., ♂), fig. 21 (♂), pl. i. fig. 4, pl. ii. fig. 14, pl. iii. fig. 29 (♀).

*Acræa kilimanjara*, Oberth. l. c. p. 26, pl. ii. fig. 17 (♀, var.).

On page 24 of the same work Mons. Oberthür describes an *Acræa* to which he gives the name *A. planesium*, the male of which he figures on pl. i. fig. 11. This is the species which I described from the Abbott Collection as *Acræa minima*. The type is in the U.S. National Museum, a co-type is in my collection. The synonymy is as follows:—

*Acræa minima*, Holl.

*Acræa minima*, Holl. Entomologist, Lond., Sept. 1892.

*Acræa planesium*, Oberth. Etudes d'Entom. livr. xvii. p. 24, pl. i. fig. 11 (1893).

I cannot resist the impression that *Acræa regalis*, Oberth. (Etud. d'Entom. livr. xvii. p. 20, pl. ii. fig. 20), is identical with *A. bræsia*, described by Godman, P. Z. S. 1885, p. 538, and figured by Smith and Kirby, Rhop. Exot., *Acræa*; pl. i. fig. 7. I have a considerable series of *A. bræsia*, Gdm., and they vary considerably, some having the marginal row of spots on the secondaries as in the figure given by Oberthür, and some are without them, as in the figure in the 'Rhopalocera Exotica,' and there are intergrades. I am fully satisfied that the two figures represent one and the same species, in which case Godman's name has the priority.

In turning over the pages of part 23 of the 'Rhopalocera Exotica,' by Smith and Kirby, I find that the learned authors have figured on the twentieth plate illustrative of African Lycaenidæ, fig. 6, a species which they name *Epitola rezia*. In the footnote they courteously express the belief that I claim this as the species described by me in 'Psyche,' vol. v. p. 425, as *E. benitensis* (not *benitensis*, as it is misprinted in the 'Rhop. Exotica'). I have taken occasion to compare the figure on the plate with my type, and find that the latter

differs in that the blue space upon the secondaries is divided by a black ray running along the lower edge of the cell and along the third median nervule, gradually widening outwardly and coalescing with the broad black marginal border. This is the only point of distinction between it and *E. rezia*, S. & K., except that the primaries are more acute.

In the same finely illustrated work, in connexion with the twenty-second plate of *African Lycænidaë* I discover that the authors have made a change in a name which is not justified. They describe *Lycenesthes lychnoptera* (sic), and figure it on the plate, concluding that my name *lychnoptes* ('Psyche,' vol. vi. p. 51) is a misprint. In this they are in error. My name *lychnoptes*\* (not *lychnoptes*, as misprinted in the 'Rhopalocera Exotica') must stand as it was published in 'Psyche.' The synonymy is therefore as follows:—

*Epitola lychnoptes*, Holl.

*Epitola lychnoptes*, Holl. *Psyche*, vol. vi. p. 51 (1891).

*Epitola lychnoptera* (err.), S. & K., *Rhop. Exot.* part xxv. pl. xxii. Afr. *Lyc.* figs. 1, 2 (1893).

Under the name *Rhadinopasa Udei* Dr. Karsch described, in the 'Entomologische Nachrichten,' 1891, p. 15, a *Smerinthine* moth which is identical with *Basiana Hornimanni*, Druce, as Karsch himself admits in a later article published in the same journal. It is worthy of notice, however, that while the specific name given by Druce must stand, the insect is dimorphic, and I infer from what I can make out of Dr. Karsch's description that he had the dimorphic form before him. I have a large series of the insect reared *ex larva*. Some of the caterpillars were reddish and produced typical *Hornimanni*, which is a rosy moth; others of the larvæ were dark green and produced a duller-coloured moth. I propose to retain Karsch's name for this form, and suggest the following synonymy:—

*Rhadinopasa Hornimanni*, Druce.

*Basiana Hornimanni*, Druce, *Ent. Month. Mag.* xvi. 1880, p. 268.

*Basiana? Hornimanni*, Holl. *Trans. Am. Ent. Soc.* xvi. 1889, p. 66, pl. iii. figs. 5, 6.

Var. dimorph. *Rhadinopasa Udei*, Karsch, *Entom. Nachr.* xvii. 1891, p. 15, Taf. i. fig. 4.

In the fourth quarterly issue of the 'Berliner entomolo-

\* *Λυχνάπτης* = a lamp-lighter.

gische Zeitschrift' Dr. Karsch makes a new genus, *Orthogonioptilum*, for the reception of three species of moderately large African moths, to which he gives the specific names *adiegetum*, *monochromum*, and *prox*, and refers the genus to the Saturniidae. This issue of the journal, though it is the fourth for the year 1892, was not published, as shown on the cover, until the middle of May 1893. A note on page vi is dated May 10th, 1893. I make remark of these facts because in the May number of the 'Entomological News' for 1893, which was mailed to subscribers at the end of April, I have described three species which are congeneric with the three published by Dr. Karsch, referring them to a new genus which I propose for their reception and which I name *Goodia* in honour of my excellent friend Dr. Good, who has done more than any other collector in recent years to throw light upon the life-history of the Lepidoptera of Western Africa, and whose voluminous notes upon the transformations of a host of species I hope ere long to publish, with figures of the various larval stages. Inasmuch as the only test of priority is that of publication, and as my name and generic characterization were, in fact, published fully two weeks prior to those of Dr. Karsch, I feel justified in claiming priority for the name under the circumstances relating to it. Were it not for my desire in this way to commemorate the services of a pioneer observer in this field, I should be less tenacious of the claim of priority, which I may nevertheless in strict propriety make. It appears therefore that there are six species which belong to this genus of beautiful moths. They may be arranged as follows:—

GOODIA, Holland. (*Orthogonioptilum*, Karsch.)

1. *Goodia vestigiata*, Holl.

*Goodia vestigiata*, Holl. Ent. News (April 30th, 1893), p. 179, pl. ix. fig. 1.

2. *Goodia lunata*, Holl.

*Goodia lunata*, Holl. l. c. p. 178, pl. ix. fig. 2.

3. *Goodia nubilata*, Holl.

*Goodia nubilata*, Holl. l. c. p. 178, pl. ix. fig. 3.

4. *Goodia* (*Orthogonioptilum*) *adiegetum*, Karsch.

*Goodia* (*Orth.*) *adiegetum*, Karsch, Berl. ent. Zeitschr. 1892, p. 501, Taf. xx. fig. 1 (published May 15, 1893).



5. *Goodia (Orth.) monochromum*, Karsch.

*Goodia (Orth.) monochromum*, Karsch, l. c. p. 502, pl. xx. fig. 3.

6. *Goodia (Orth.) prox*, Karsch.

*Goodia (Orth.) prox*, Karsch, l. c. p. 502, footnote.

My reference of the genus to the Drepanulidæ is, I discover upon a more minute examination of the neurulation, erroneous. Dr. Karsch is right in referring it to the Saturniidæ.

Western University of Pennsylvania,  
August 16, 1893.

XLII.—*Description of the Anatomy &c. of a new Species and Variety of Arion.* By WALTER E. COLLINGE, Demonstrator of Biology, Mason College, Birmingham.

[Plate IX.]

*Arion flagellus*, sp. n. (Pl. IX.)

For some months past I have been receiving large series of Irish slugs, mostly belonging to the genus *Arion*, from Mr. R. A. Phillips, of Ashburton, Co. Cork.

In June last I received two boxes of Arions, three examples of which I noticed in particular owing to the small size of the caudal gland. Through the kindness of Dr. Scharff, Mr. Phillips, and Miss Delap I have had opportunities for examining many hundreds of Irish Arioninæ; but nothing approaching this form has previously come under my notice. On July 26th I received a further series of slugs from Mr. Phillips, collected at Schull, Co. Cork, two of which I recognized as agreeing with the form previously noted.

A careful examination satisfies me that it is a new form, which I now describe and figure.

The slug alive measured 50 millim. in length, in alcohol 42 millim., with a mantle 13 millim. long. The head is of a bluish-white colour, which gradually darkens or becomes a greyish blue on the tentacles. In the median line of the body a broad, dark, vandyke-brown coloured band extends from the caudal gland to the mantle and becomes less distinct after passing over about half the length of the mantle. On